

Pittosporum echinatum

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Rosales	Pittosporaceae

Taxon Name: *Pittosporum echinatum* Brongn. & Gris

Taxonomic Source(s):

Tirel, Ch. and Veillon, J.-M. 2002. *Flore de la Nouvelle-Calédonie, tome 24. Pittosporaceae*. Museum d'Histoire Naturelle, Paris.

Assessment Information

Red List Category & Criteria: Vulnerable B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v) [ver 3.1](#)

Year Published: 2017

Date Assessed: July 24, 2015

Justification:

Pittosporum echinatum is an endemic shrub of New Caledonia with an area of occupancy and extent of occurrence equal to 44 and 873 km² respectively. *Pittosporum echinatum* occurs in shrubland and undergrowth of humid forest at mid altitude, mostly on volcano-sedimentary substrates and occasionally on ultramafic substrates (Tiébaghi). Population size is not known precisely but could be around 10,000 mature individuals. Threats to *P. echinatum* are linked to intensive mining activities at the Tiébaghi locality, to bushfire for Ouégoa, and damage caused by feral pigs and Rusa Deer at the Koumac-3 creeks location. All of these threats indicate a continuous decline in extent of occurrence, area of occupancy, habitat quality, number of locations and number of mature individuals. Using criteria B, *P. echinatum* is assessed as Vulnerable (VU) under the criteria B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v).

Geographic Range

Range Description:

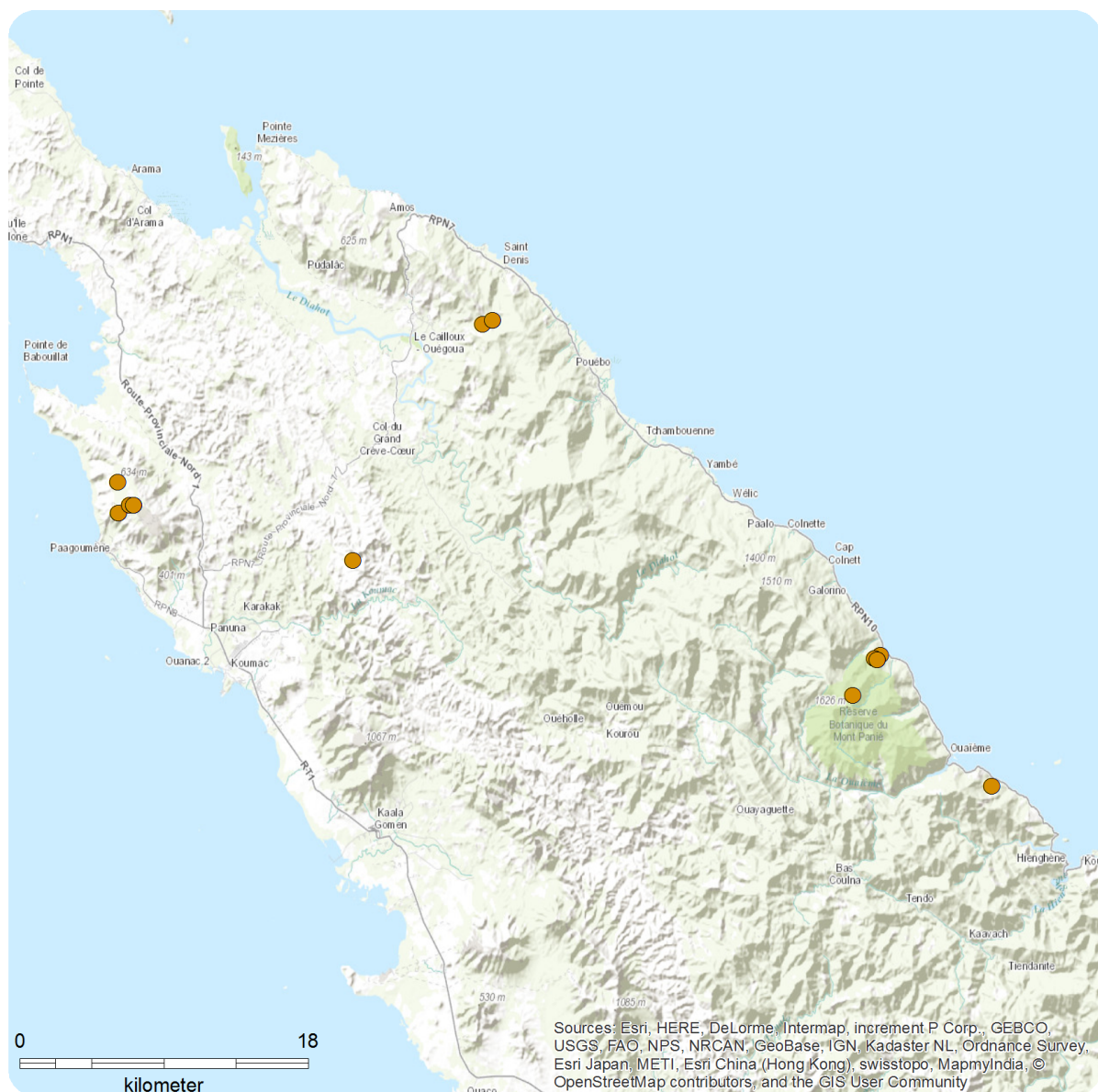
Pittosporum echinatum is an endemic species of New Caledonia, distributed on northeastern Grand Terre with disjunct occurrences on massif de Tiébaghi and at "three creeks" station.

Country Occurrence:

Native: New Caledonia

Distribution Map

Pittosporum echinatum



Range

- Extant (resident)

Compiled by:

IUCN SSC New Caledonia Plants RLA



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



Population

Population size is not precisely known, but this species could have more than 10,000 mature individuals.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Pittosporum echinatum occurs in shrubland and undergrowth of humid forest at mid altitude, mostly on volcano-sedimentary substrates and occasionally on ultramafic substrates (Tiébaghi).

Systems: Terrestrial

Threats (see Appendix for additional information)

The main threats to this species are intensive mining activities for the Tiébaghi subpopulation, bushfire for the Ouégoa locality and damage caused by Rusa Deer and feral pigs at the "Koumac- three creeks" locality. New Caledonia contains between 20 - 30% of the world's nickel resources. Intense mining activities since the late 19th century have generated soil erosion (1.2% of bare ground mapped by SPOT5 in 2007).

Conservation Actions (see Appendix for additional information)

Pittosporum echinatum is not protected by legislation, but occurs in one protected area: la réserve de nature sauvage du mont Panié. From current phylogenetic studies, different subpopulations should comprise one unique species, *P. echinatum*. However, the presence of one subpopulation on ultramafic substrate, a habitat which is clearly different from other subpopulations, requires a better assessment of subpopulation variability. Due to its different ecological conditions, the subpopulation from massif de Tiébaghi should be subject to priority conservation measures (e.g. erection of a fence).

Credits

Assessor(s): Gemmill, C., Veillon, J.-M., Amice, R., Cazé, H., Dumontet, V., Fleurot, D., Garnier, D., Gâteblé, G., Letocart, I., Letocart, D., Maggia, L. & Pain, A.

Reviewer(s): Tanguy, V.

Facilitators(s) and Compiler(s): Chanfreau, S.

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Tirel, Ch. and Veillon, J.-M. 2002. *Flore de la Nouvelle-Calédonie, tome 24. Pittosporaceae*. Museum d'Histoire Naturelle, Paris.

Citation

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External Resources

For [Images and External Links to Additional Information](#), please see the Red List website.

Appendix

Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.6. Forest - Subtropical/Tropical Moist Lowland	-	Suitable	-
3. Shrubland -> 3.5. Shrubland - Subtropical/Tropical Dry	-	Suitable	-

Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
3. Energy production & mining -> 3.2. Mining & quarrying	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.1. Increase in fire frequency/intensity	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Sus domesticus)	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.2. Species disturbance 2. Species Stresses -> 2.3. Indirect species effects -> 2.3.7. Reduced reproductive success		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Rusa timorensis)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.2. Species disturbance 2. Species Stresses -> 2.3. Indirect species effects -> 2.3.7. Reduced reproductive success		

Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions in Place
In-Place Land/Water Protection and Management
Occur in at least one PA: Yes

Conservation Actions in Place
Invasive species control or prevention: No
In-Place Species Management
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No

Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions Needed
2. Land/water management -> 2.1. Site/area management

Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Research Needed
1. Research -> 1.1. Taxonomy

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km ²): 44
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km ²): 873
Continuing decline in extent of occurrence (EOO): Yes
Extreme fluctuations in extent of occurrence (EOO): No
Number of Locations: 6
Continuing decline in number of locations: Yes
Extreme fluctuations in the number of locations: No
Lower elevation limit (m): 50
Upper elevation limit (m): 600
Population
Number of mature individuals: 10000-100000
Continuing decline of mature individuals: Yes

Population
Extreme fluctuations: No
Population severely fragmented: No
No. of subpopulations: 7
Extreme fluctuations in subpopulations: No
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 0

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